

Notice of Allowability

Application No.

10/620,236

Examiner

Erick Glass

Applicant(s)

KAWAI ET AL.

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/19/07.
2. ☒ The allowed claim(s) is/are 2,4,28-30 and 32-39.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Cancel claims 3, 5-8 and 10-27.

From pages 9 and 10 of the specification.

Please delete -- Fig. 4A, Fig. 4B, and Fig. 4C --

Enter "Fig. 4"

Delete -- Fig. 5A, Fig. 5B, and Fig. 45C --

Enter "Fig. 5"

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: With respect to claims 34, and 37, the Prior Art does not teach distal end bending section constructed with bending capability; a motor for effecting a movement of the distal bending section in a first direction, the motor including an actuator; a hauling unit, the hauling unit comprising: a pulley fixed to a rotation axis of the motor, wherein a wire comprising a first and a second end is wrapped around the pulley, and wherein the first and second ends are connected to the actuator; two wire sheaths arranged for protecting separate

wire portions that are positioned between the motor and the distal bending section; an operating unit constructed to operate to generate and output a first target value in response to a user input; and a controller for controlling motor rotation, the controller comprising: a first motor control portion that generates and outputs a first motor control signal based at least in part on a control input signal; an input correction portion for converting the first target value into a first correction value by a linear converting operation, wherein a first characteristic curve defined by the first correction value is defined by a first predetermined slope if the received target value is outside a predetermined range within which is indicative of a state wherein both ends of the wire connected to the actuator mechanism are loose, wherein the input correction portion converts the received target value into a second correction value by a proportional converting operation, wherein a second characteristic curve defined by the second correction value is defined by a second predetermined slope that is greater than the first determined slope if the received target value is within the predetermined range, and wherein the first correction value and the second correction value are supplied by the control portion as the control input signal by which the control portion generates and outputs the driving unit control signal to drive the driving unit such that the target value is outside the predetermined range.

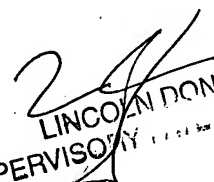
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Glass whose telephone number is 571-272-8395. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on 571-272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EG


LINCOLN DONOVAN
SUPERVISOR, FIRST EXAMINER